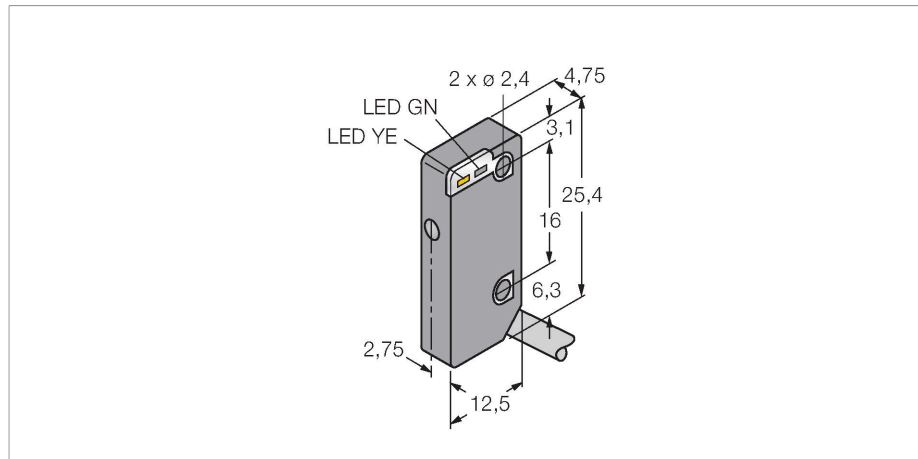


# VS4RP5R

## Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)

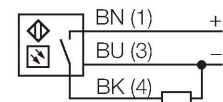
### Miniature Sensor



#### Features

- Cable 2 m
- Protection class IP67
- Operating voltage: 10...30 VDC
- Flat design
- PNP switching output, dark operation

#### Wiring diagram



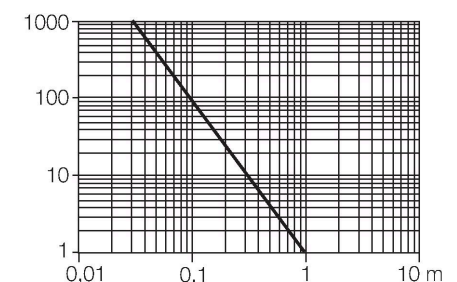
#### Technical data

Type	VS4RP5R
ID no.	3069426
<b>Optical data</b>	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...1000 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
DC rated operational current	≤ 50 mA
No-load current	≤ 25 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, dark operation, PNP
Switching frequency	≤ 660 Hz
Readiness delay	≤ 100 ms
Response time typical	< 1 ms
<b>Mechanical data</b>	
Design	Rectangular, VS4
Dimensions	12.5 x 4.75 x 25.4 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Cable, 2 m, PVC
Number of cores	3

#### Functional principle

Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque objects. The excellent light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

Excess gain curve  
Excess gain in relation to distance



## Technical data

Core cross-section	0.381 mm <sup>2</sup>
Ambient temperature	-20...+55 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Green
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
<b>Tests/approvals</b>	
Approvals	CE

## Accessories

SMBVS4SRA	3069435
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Montagewinkel, 300 Edelstahl,  
rechtwinklig, für Sensoren der  
Baureihe VS4